

IN THE CLAIMS:

1-12. (Canceled)

13. (Currently amended) A solid oxide fuel cell, comprising:

a zirconia electrolyte,

a doped-zirconia layer deposited on said zirconia electrolyte;

a doped ceria layer deposited on said doped-zirconia layer;

a LSCF + doped-ceria layer deposited on said doped ceria layer; and

a LSCF layer deposited on said LSCF + doped-ceria layer, and wherein said

LSCF layer functions as a current collector.

~~a layer of doped-ceria deposited on said zirconia electrolyte, and~~

~~—— a cobalt iron based electrode deposited on the layer of doped-ceria, said solid oxide fuel cell having a peak power density of up to 1400 mW/cm² at 800 °C and up to 900 mW/cm² at 700 °C.~~

14. (Original) The solid oxide fuel cell of Claim 13, having a power density in the range of 250 mW/cm² to 1400 mW/cm² at a temperature range of 600 °C to 800 °C.

15. (Currently amended) The solid oxide cell of Claim 13, wherein said ~~cobalt iron based electrode is composed of~~ LSCF layer comprises (La,Sr)(Co,Fe)O.

16. (Canceled)

17. (Currently amended) The solid oxide fuel cell of Claim 13, wherein said doped-ceria layer ~~is composed of~~ comprises ceria doped with ~~any element of the lanthanides a lanthanide~~.

18. (Currently amended) The solid oxide fuel cell of Claim 17, wherein ~~the~~ said ceria is doped with gadolinium or yttrium.

19-25 (Canceled)

26. (Currently amended) The solid oxide fuel cell of Claim 13, wherein said electrolyte has a thickness of 1-40 μ m, ~~the layer of~~ wherein said doped-ceria layer has a thickness of 0.5-40 μ m, and ~~the cobalt-iron based electrode~~ wherein said LSCF layer has a thickness of 10-100 μ m.

27. (Currently amended) The solid oxide fuel cell of Claim 26, wherein said electrolyte has a thickness of 1-20 μ m, and ~~said layer of~~ doped-ceria layer has a thickness of 0.5-5 μ m.